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Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)
	10/812,442	FEROLI ET AL.
Office Action Summary	Examiner	Art Unit
	Ingrid Wright	2835
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the	correspondence address
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DATE of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  If NO period for reply is specified above, the maximum statutory period verailure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION  36(a). In no event, however, may a reply be to the second will expire SIX (6) MONTHS from the second ABANDON cause the application to become ABANDON	NN. imely filed m the mailing date of this communication. IED (35 U.S.C. § 133).
Status		
Responsive to communication(s) filed on 11/20     This action is <b>FINAL</b> . 2b)⊠ This     Since this application is in condition for alloware closed in accordance with the practice under E	action is non-final. nce except for formal matters, p	
Disposition of Claims	.•	
4)	wn from consideration. e rejected.	
Application Papers		
9) The specification is objected to by the Examine 10) The drawing(s) filed on 30 March 2004 is/are:  Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Example 11 Sec. 5 119	a) $\square$ accepted or b) $\square$ objected drawing(s) be held in abeyance. Stion is required if the drawing(s) is c	ee 37 CFR 1.85(a). objected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119  12) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(	a)-(d) or (f).
<ul> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority document</li> <li>2. Certified copies of the priority document</li> <li>3. Copies of the certified copies of the priority application from the International Burear</li> <li>* See the attached detailed Office action for a list</li> </ul>	s have been received. s have been received in Applica rity documents have been recei u (PCT Rule 17.2(a)).	ation No ved in this National Stage
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date	4) Interview Summa Paper No(s)/Mail 5) Notice of Informa 6) Other:	

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#### **DETAILED ACTION**

#### Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 18,19,26,28-30 & 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. US 5365658 in view of Amberg et al. US 6435916 B1, further in view of Larabell et al. US 5842030.

Note: figures represented in the previous Office Action still hold for the following Action.

Re claim 1, Freeman et al. teaches a cord assembly for connecting a connector of a building wiring system (see, Abstract of Freeman et al.), the cord assembly having: a cord (see, cord of cable (20)) which includes a first plug (92) configured to connect to a frame (68) and second plug (94) configured to connect to a panel (98) of a building wiring distribution system (see, Abstract of Freeman et al.), and a cable (20) interconnected between the first and second plugs (92,94); and a device (74) configured to fasten the first plug (92) to the frame (68), the device (74) including a body (see, body of (72)) configured to attach to an installation location of a frame (68) and substantially hold the first plug (92) at the installation location of the frame (68), the body (see, body of (74)) including a first end wall (see, fig. 3 of Freeman ), a second end wall (see, fig. 2 of Freeman et al.), and lateral walls (see, fig. 2 of Freeman et al.) which connect the first end wall and the second end wall together; wherein, when the body (see, body of (74)) substantially holds the first plug (92) at the installation location of the frame (68) and when the body

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(see, body of (74))) is attached to the installation location of the frame (68), (i) the first end wall (see, fig. 2 of Freeman et al.) is configured to restrain the plug (92,94) in a positive Z-direction relative to the frame, (ii) the second end wall is configured to restrain the first plug (92) in a negative Z-direction relative to the frame (68), the negative Z-direction being opposite to the positive Z-direction along a Z-axis, and (iii) the lateral walls are configured to register the first plug (92) relative to the frame in an X-Y plane which is perpendicular to the Z-axis, but is silent as to specifically a power cord assembly and a data storage system. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a power cord assembly in the invention of Freeman et al., in order to provide a common electrical means of connecting two connector plugs.

Additionally, Amberg et al. teaches a power cord (not shown in figs. of Amberg et al.), which includes a first plug (711) connected to a PC board (900) and a second plug (not shown), for supplying power to operating circuitry of the PC board (900) (see Abstract of Amberg et al.). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a power cord assembly of Amberg et al. in the invention of Freeman et al., in order to provide an alternate equivalent electrical means of connecting two connector plugs.

Larabell et al. teaches a data storage system (10) comprising a housing (12) having a frame (see, frame of housing (12)), operating circuitry (124) and a power supply subsystem (16) configured to power the operating circuitry (124), the power subsystem (16) including a power supply (122) configured to be supported by the frame (see, frame of housing (12)), but is silent as to a power cord assembly. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize any electrical system such as the data storage system of Larabell et al., in the invention of Freeman et al. as

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modified by Amberg et al., in order to provide a conventional means of connecting electrical connectors to an electrical system.

Re method claim 18, the method steps recited in the claims are inherently necessitated by the device structure as taught by Freeman et al., Amberg et al. & Larabell et al. Freeman et al., Amberg et al. & Larabell et al. Freeman et al., Amberg et al. & Larabell et al. disclosed installing a power supplied by a wall socket (see, col. 3, lines 15-17 of Amberg et al.) into a data storage system (10), a device (74) fastened to a plug (711) of a power cord (not shown); attaching the device (74) to an installation location of a frame (68) of the data storage system (10); a power supply (see, col. 3, lines 15-17 of Amberg et al.) inserted into the frame (68) of the data storage system (10) until the power supply (see, col. 3, lines 15-17 of Amberg et al.) mates with the plug (711) of the power cord (not shown), the device (74) having a first end wall, and lateral walls which connect the first end wall and the second end wall together; wherein, when the device (74) substantially holds the plug (92) at the installation location of the frame (68) and when the device (74) is attached to the installation location of the fame (68), (i) the first end wall is configured to restrain the plug (92) in a positive Z-direction relative to the frame (68), (ii) the second end wall is configured to restrain the first plug (92) in a negative Z-direction relative to the frame (68), the negative Z-direction being opposite to the positive Z-direction along a Z-axis, and (iii) the lateral walls are configured to register the first plug (92) relative to the frame (68) in an X-Y plane which is perpendicular to the Z-axis.

Re claims 19 & 26 respectfully, Freeman et al., as modified by Amberg et al. & Larabell et al. teaches a body (see, body of (74), but is silent as to a first and second member. Freeman et al., as modified by Amberg et al. & Larabell et al., in another embodiment, teaches wherein body (see, body of (16)) includes: a first and second member (see, fig. 1 of Freeman et al.), having walls and configured to allow the plug (14) to be in a interior location when in an open position relative to each other and encapsulate

the plug (14); wherein 90 degree angles and other angle portions are defined, for preventing the plug (14) from being inserted into the body (see, body of (16)) correctly, but is silent as to specifically the second member defining angles greater than 90 degrees. It would have bee obvious to one having ordinary skill in the art at the time the invention was made to utilize angles greater than 90 degrees or any other angles in the configuration of Freeman et al., as modified by Amberg et al. & Larabell et al., in order to provide an alternate equivalent means of preventing the plug of Freeman et al., as modified by Amberg et al. & Larabell et al., from being inserted incorrectly.

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Re claim 21, Freeman et al. in view of Amberg et al. & Larabell et al. teaches wherein the first plug (711) of the cord and the body of the device are separate components, the body of the device (74) being configured to capture the first plug in an interference fit manner and present a physical connection interface of the first plug to a device for direct physical mating between the physical connection interface of the first plug and the device when the device (74) fastens the first plug to the frame (68). (Freeman teaches a plug, which physically mates with an aperture of a panel (98).

Re claim 28 respectively, Freeman et al., as modified by Amberg et al. & Larabell et al., teaches wherein the first plug (92) of the cord (90) and the body (see, body of (74)) of the device (74) are separate components, the body (see, body of (74)) of the device (74) being configured to capture the first plug (92) in an interference fit manner and present a physical connection interface of the first plug (92) for direct physical mating between the physical connection interface, when the device (74) fastens the first plug (92) to the frame (68) and a power supply (see, col. 3, lines 15-17 of Amberg et al.).

Re claim 29, in regards to all the limitations of claim 1 above, Freeman et al. in view of Amberg et al. & Larabell et al., teaches wherein the device is configured to fasten the first plug to the frame such that the first plug cannot be removed from the frame without also removing the device from the frame.

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Re claims 30, in regards to all the limitations of claim 1 above, Freeman et al. in view of Amberg et al. & Larabell et al., teaches wherein the body of the device is configured to encapsulate power plugs having different shapes.

Re claim 35, in regards to all the limitations of claim 18 above, Freeman et al. in view of Amberg et al. & Larabell et al., teaches wherein the device is attached to the installation location of the frame of the data storage system, which comprises the plug of the power cord fastened to the frame such that the plug cannot be removed from the frame without removing the device from the frame.

Re claim 36, in regards to all the limitations of claim 18 above, Freeman et al. in view of Amberg et al. & Larabell et al., teaches wherein the body of the device is configured to encapsulate power plugs having differing shapes.

Re claim 37, in regards to all the limitations of claim 18 above, Freeman et al. in view of Amberg et al. & Larabell et al., teaches wherein the frame includes a mounting element configured to support the power supply and wherein inserting the power supply into the frame of the data storage system, further comprises the power supply slid into the frame adjacent the mounting element such that the mounting element supports the power supply.

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2. Claims 2,5-7,10,13-15, 23 & 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. US 5365658 in view of Amberg et al. US 6435916 B1.

Re claim 2, Freeman et al. teaches a cord assembly for connecting a connector to a panel (98) of a building wiring distribution system (see, Abstract of Freeman et al.), the cord assembly comprising: a cord (20) having a first plug (92) configured to connect to the frame (68), a second plug (94) configured to connect to a panel of a wiring distribution system (see, Abstract of Freeman et al.), and a cable (see, cable of cord (20)) interconnected between the first and second plugs (92,94); and a device (74) for fastening the first plug (92) to a frame (68), which is configured to support the connection of the plug (92), the device (74) including a body (seem body of (74)) configured to attach to an installation location of the frame (68) and substantially hold the first plug (92) at the installation location of the frame (68) and disconnects from the plug (92), the body (see, body of (74)) including: a first end wall (see, fig. 2 of Freeman et al.), a second end wall (see, fig. 2 of Freeman et al.), and lateral walls (see, fig, 2 of Freeman et al.) which connect the first end wall and the second end wall together; wherein, when the body (see, body of (74)) substantially holds the first plug (92) at the installation location of the frame (68) and when the body (see, body of (74)) is attached to the installation location of the frame (68), (i) the first end wall is configured to restrain the plug (92) in a positive Z-direction relative to the frame (68), (ii) the second end wall is configured to restrain the first plug (92) in a negative Z-direction relative to the frame (68), the negative Z-direction being opposite to the positive Z-direction along a Z-axis, and (iii) the lateral walls are configured to register the first plug (92) relative to the frame in an X-Y plane which is perpendicular to the Z-axis, but is silent as to a power cord assembly. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a power cord assembly in the invention of Freeman et al., in order to provide a common electrical means of connecting two connector plugs.

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Additionally, Amberg et al. teaches a power cord (not shown in figs. of Amberg et al.), which includes a first plug (711) connected to a PC board (900) and a second plug (710), for supplying power to operating circuitry of the PC board (900) (see Abstract of Amberg et al.). Further, Amberg suggests the plug of the power cord and the body of the device are separate components, the body of the deice being configured to capture the plug in an interference fit manner and present a physical connection interface of the plug to the power supply for direct physical mating between the physical connection interface of the plug and the power supply when the device fastens the plug to the frame. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a power cord assembly of Amberg et al. in the invention of Freeman et al., in order to provide an alternate equivalent electrical means of connecting two connector plugs.

Re claim 10, Freeman et al. teaches a device (74) for fastening a plug (92) of a cord (20) to a frame (68), the device (74) comprising: a body (see, body of (74)) configured to attach to an installation location of the frame (68) and substantially hold the plug (92) at the installation location of the frame (68) and disconnects from the plug (92), the body (see, body of (74)) including: a first end wall, a second end wall, and lateral walls (see, fig. of Freeman et al.), which connect the first end wall and the second end wall together; wherein, when the body (see, body of (74)) substantially holds the plug at the installation location of the frame (68) and when the body (see, body of (74)) is attached to the installation location of the frame (68), (i) the first end wall is configured to restrain the plug (92) in a positive Z-direction relative to the frame (68), (ii) the second end wall is configured to restrain the plug (92) in a negative Z-direction relative to the frame, the negative Z-direction being opposite to the positive Z-direction along a Z-axis, and (iii) the lateral walls are configured to register the plug (92) relative to the frame (68) in an X-Y plane which is perpendicular to the Z-axis, but is silent as to a power cord. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a power cord assembly in the

invention of Freeman et al., in order to provide a common electrical means of connecting two connector plugs.

Additionally Amberg et al. teaches a power cord (not shown in figs. of Amberg et al.) which includes a first plug (711) connected to a PC board (900) and a second plug (not shown), for supplying power to operating circuitry of the PC board (900) (see Abstract of Amberg et al.). Further, Amberg suggests the plug of the power cord and the body of the device are separate components, the body of the deice being configured to capture the plug in an interference fit manner and present a physical connection interface of the plug to the power supply for direct physical mating between the physical connection interface of the plug and the power supply when the device fastens the plug. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a power cord assembly of Amberg et al. in the invention of Freeman et al., in order to provide an alternate equivalent electrical means of connecting two connector plugs.

Re claims 5 & 13, respectively, in regards to all the limitations of claim 2 and 10 above, Freeman et al. as modified by Amberg et al. teaches the body (see, body of (74)), but is silent as to a first and second member. Freeman et al. as modified by Amberg et al., teaches in another embodiment, a body (see, body of (16)) having a first and a second member (see, fig. 1 of Freeman et al.). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the first and second members of Freeman et al. as modified by Amberg et al., over the configuration of the device of (74) of Freeman et al. as modified by Amberg et al., as an alternate equivalent means of housing a connector plug for an opening or aperture of a frame.

Re claim 6, Freeman et al. as modified by Amberg et al. teaches first and second members (see, fig. 1 of Freeman et al.), which define 90 degree angles and other angle portions for preventing a plug (14) from being inserted into the body (see, body of (16)) correctly, but is silent as to specifically the second member defining 135 degree angles. It would have bee obvious to one having ordinary skill in the art at the time the invention was made to utilize 135 degree angles or any other angles in the configuration of Freeman et al. as modified by Amberg et al., in order to provide an alternate equivalent means of preventing the plug of Freeman et al. as modified by Amberg et al. from being inserted incorrectly.

Re claim 7 & 15 respectfully, Freeman et al. as modified by Amberg et al., teaches first and second members (see, fig. 1 of Freeman et al.), which define 90 degree angles and other angle portions for preventing a plug (14) from being inserted into the body (see, body of (16)) correctly, but is silent as to specifically the second member defining 135 degree angles. It would have bee obvious to one having ordinary skill in the art at the time the invention was made to utilize 135 degree angles or any other angles in the configuration of Freeman et al. as modified by Amberg et al., in order to provide an alternate equivalent means of preventing the plug of Freeman et al. as modified by Amberg et al., from being inserted incorrectly.

Re claim 14, Freeman et al. in view of Amberg et al. & Larabell et al., teaches wherein a member (704) defines a set of substantially 90 degree angels, and wherein a second member (711) defines a set of angles which are substantially great than 90 degrees to control the rotational orientation of the plug relative to the first and second members when the plug encapsulated by the first and second members. Amberg et al. is relied upon to teach a modular connector (711) with an additional connector or plug. A portion (704) of connector (711) is encapsulated, whereby 90 degree angles are formed between members (704) and (711).

Re claim 23, in regards to all the limitations of claims 2 & 10 above, Freeman et al., as modified by Amberg et al., teaches wherein the first plug (92) of the cord (90) and the body (see, body of (74)) of the device (74) are separate components, the body (see, body of (74)) of the device (74) being configured to capture the first plug (92) in an interference fit manner and present a physical connection interface of the first plug (92) for direct physical mating between the physical connection interface, when the device (74) fastens the first plug (92) to the frame (68) and a power supply (see, col. 3, lines 15-17 of Amberg et al.).

Re claims 31, in regards to all the limitations of claim 2 above, Freeman et al. in view of Amberg et al., teaches wherein a body of the device is configured to encapsulate power plugs having different shapes.

Re claim 32, in regards to all the limitations of claim 5 above, Freeman et al. in view of Amberg et al., teaches wherein the body of the device is configured to encapsulate power plugs having different shapes.

Re claim 33, in regards to all the limitations of claim 10 above, Freeman et al. in view of Amberg et al., teaches wherein the body of the device is configured to encapsulate power plugs having different shapes.

Re claim 34, in regards to all the limitations of claim 13 above, Freeman et al. in view of Amberg et al., teaches herein the first and second members are configured to encapsulate power plugs having different shapes.

3. Claims 8 & 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. US 5365658 in view of Amberg et al. US 6435916 B1, further in view of Ngyuyen et al. US 6411526 B1.

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Re claim 8 & 16 respectively, in regards to all the limitations of claim 2 & 10 above, Freeman et al. as modified by Amberg et al., teaches the first end wall, the second end wall and the lateral walls (see, fig. 2 of Freeman et al.), but is silent specifically as to being formed of a non-conductive material. Nguyen et al. teaches a connector formed of a non-conductive material (polymer) (see, col. 3, lines 60-67 of Nguyen et al.). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the material (polymer) as taught by Nguyen et al., in the invention of Freeman et al. as modified by Amberg et al., in order to provide a support material for a connector.

4. Claim 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al. US 5365658 in view of Amberg et al. US 6435916 B1, further in view of Spruell US 20050161248 A1.

Re claim 12 respectively, in regards to all the limitations of claim 2 & 10 above, Freeman et al. as modified by Amberg et al. teaches the body (see, body of (74)) and the frame (68), a but is silent specifically as to a key. Spruell teaches a key (see, col. 5, par. 0068 of Spruell) extending from a wall of an electrical cable, for preventing rotation about a Z-axis. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a key as taught by Spruell, in the invention of Freeman et al. as modified by Amberg et al., in order to provide a means of preventing the connector of Freeman et al. as modified by Amberg et al. from being accidently removed from the frame and to firmly secure the connector of Freeman et al. as modified by Amberg et al. in the panel.

## Response to Arguments

5. Applicant's arguments with respect to claims have been considered, but are not persuasive.

Re Argument of claim 10 & 13-18, the Examiner respectfully disagrees and that Freeman teaches a plug that physically mates with an aperture of a panel. The Prior art teaches connecting a plug to a device

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positioned at a frame, but not specifically connecting to a device such as a power supply. It is well within one of ordinary skill to connect any device with a plug that physically mates with an aperture of any device or specifically a power supply. The functionality of the plug to connect to a device is met, when it connects to any device or specifically a power supply. Further, Larabell et al. is relied upon to teach a power supply.

Re Argument of claim 13, the Examiner respectfully disagrees and notes that Freeman is not relied upon to teach a modular connector made of two separate members. Amberg et al. is relied upon to teach a modular connector (711) with an additional connector or plug. A portion (704) of connector (711) is encapsulated.

Re Argument of claim 16, the Examiner respectfully disagrees and notes that Nguyen teaches a non-conductive material utilized in a cord assembly, which is common and well known in the art.

Re Argument of claims 2,5-8 & 23, the Examiner respectfully disagrees and notes that Freeman teaches a plug that physically mates with an aperture of a panel. The Prior art teaches connecting a plug to a device positioned at a frame, but not specifically connecting to a device such as a power supply. It is well within one of ordinary skill to connect any device with a plug that physically mates with an aperture of a power supply. The functionality of the plug to connect to a device is met, when it connects to any device or specifically a power supply. Further, Larabell et al. is relied upon to teach a power supply.

Re Argument of claim 1,19 and 21, the Examiner respectfully disagrees and notes that Examiner respectfully disagrees and that Freeman teaches a plug that physically mates with an aperture of a panel and connects the plug to a device positioned at the frame, but not specifically to a device such as a power supply. It is well within one of ordinary skill to connect any device with a plug that physically mates with an aperture of any device or a specifically a power supply. The functionality of the plug to connect to a

device is met, when it connects to any device or specifically a power supply. Further, Larabell et al. is relied upon to teach a power supply.

Re Argument of claim 19, the Examiner respectfully disagrees and notes that Freeman is not relied upon to teach a modular connector made of two separate members. Amberg et al. is relied upon to teach a modular connector (711) with an additional connector or plug. A portion (704) of connector (711) is encapsulated.

Re Argument of claim 18,26,28, the Examiner respectfully disagrees and notes that Freeman teaches a plug that physically mates with an aperture of a panel and connects the plug to a device positioned at the frame, but not specifically to a device such as a power supply. It is well within one of ordinary skill to connect any device with a plug that physically mates with an aperture of any device or a specifically a power supply. The functionality of the plug to connect to a device is met, when it connects to any device or specifically a power supply. Further, Larabell et al. is relied upon to teach a power supply.

Re Argument of claim 19, the Examiner respectfully disagrees and notes that Freeman is not relied upon to teach a modular connector made of two separate members. Amberg et al. is relied upon to teach a modular connector (711) with an additional connector or plug. A portion (704) of connector (711) is encapsulated.

### Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ingrid Wright whose telephone number is (571)272-8392. Tohe examiner can normally be reached on M-F. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Darren Schuberg can be reached on (571)272-2800, ext 35. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**IDW**